Validations of the "Character Mosaic Report"
Technical Report
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Abstract. The United States Air Force Academy's "Center for Character and Leadership Development" produced the "Character Mosaic Report" for freshmen cadets. The report provides individual scores on nine different virtues embodied in the AF Core Values, along with scores on each of the four elements of "The ARDA Model" (i.e., Awareness, Reasoning, Deciding, Acting). The virtue scores were initially created through reviewing previously validated instruments that exhibited face validity. Evidences of convergent and discriminant validity were provided through a series of exploratory factor analyses; each factor additionally demonstrated sufficient reliability (i.e., Cronbach's alpha values of at least 0.70). Two Mosaic virtues were presumed to be related to two constructs from the "Moral Foundations Questionnaire", and subsequent correlations provided evidence of convergent and discriminant validity. Scale scores on each of four elements of The ARDA Model were validated through varying methods. The "Awareness" scale reflected scores from the "Situational Judgment Test" – a USAFA instrument that had demonstrated content validity with "subject matter experts" (i.e., the Air Officer Commanding and the Academy Military Trainers). The "Reasoning" scale simply reflected the scores obtained from the "Defining Issues Test" (an instrument that measures moral reasoning, which has already been widely validated). "Deciding" scale scores demonstrated content validity through a review by the same subject matter experts who reviewed the "Awareness" scale, and additionally demonstrated a degree of criterion-related validity when correlated with the DIT-2. The two "Acting" scales (i.e., "Lying" and "Cheating") were originally derived from items in USAFA's "Character Behaviors & Acceptability Questionnaire" which had demonstrated convergent and discriminant validity (through a series of exploratory factor analyses), as well as sufficient reliability (through obtaining alpha values of at least 0.70). Finally, linear regressions were conducted on the "Lying" and "Cheating" scales, using the other Mosaic scale scores – resulting in a significant ability to predict both the "Lying" and the "Cheating" scores. In summary, the Character Mosaic Report (i.e., the collection of the scales that measure "Virtues" and "The ARDA Model") demonstrated evidence of reliability and various forms of validity.

Background

The vision of the United States Air Force Academy's (USAFA) Center for Character and Leadership Development (CCLD) is to become "*the Air Force's premier Center for integrating the development of character and leadership.*"

In that pursuit, CCLD created the "Developing Leaders of Character" conceptual framework as their guiding method for what best develops cadets. This framework emphasizes that a "Leader of Character" is someone who "*consistently practices the virtues embodied in the AF Core Values.*" Further, the framework asserts that "The ARDA Model" is a theoretically and pragmatically sound method of practicing and strengthening one as a Leader of Character. The ARDA Model consists of:

- **Awareness**: Is this an ethical situation or moment for leadership?
- **Reasoning**: What do I need to consider in order to select the best course of action, based upon my values, experiences, commitments, etc.?
- **Deciding**: What do I intend to do? Does my decision align with the kind of person or leader I want to be?
- **Acting**: Are my actions consistent with being a Leader of Character?

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14. ABSTRACT

The United States Air Force Academy?s ?Center for Character and Leadership Development? produced the ?Character Mosaic Report? for freshmen cadets. The report provides individual scores on nine different virtues embodied in the AF Core Values along with scores on each of the four elements of ?The ARDA Model? (i.e., Awareness Reasoning, Deciding, Acting). The virtue scores were initially created through reviewing previously validated instruments that exhibited face validity. Evidences of convergent and discriminant validity were provided through a series of exploratory factor analyses each factor additionally demonstrated sufficient reliability (i.e., Cronbach?s alpha values of at least 0.70). Two Mosaic virtues were presumed to be related to two constructs from the ?Moral Foundations Questionnaire?, and subsequent correlations provided evidence of convergent and discriminant validity. Scale scores on each of four elements of The ARDA Model were validated through varying methods. The ?Awareness? scale reflected scores from the ?Situational Judgment Test? ? a USAFA instrument that had demonstrated content validity with ?subject matter experts? (i.e., the Air Officer Commanding and the Academy Military Trainers). The ?Reasoning? scale simply reflected the scores obtained from the ?Defining Issues Test? (an instrument that measures moral reasoning, which has already been widely validated). ?Deciding? scale scores demonstrated content validity through a review by the same subject matter experts who reviewed the ?Awareness? scale, and additionally demonstrated a degree of criterion-related validity when correlated with the DIT-2. The two ?Acting? scales (i.e. ?Lying? and ?Cheating?) were originally derived from items in USAFA?s ?Character Behaviors & Acceptability Questionnaire? which had demonstrated convergent and discriminant validity (through a series of exploratory factor analyses), as well as sufficient reliability (through obtaining alpha values of at least 0.70). Finally, linear regressions were conducted on the ?Lying? and ?Cheating? scales, using the other Mosaic scale scores ? resulting in a significant ability to predict both the ?Lying? and the ?Cheating? scores. In summary, the Character Mosaic Report (i.e., the collection of the scales that measure ?Virtues? and ?The ARDA Model?) demonstrated evidence of reliability and various forms of validity.

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Additionally, the CCLD framework maintains that it is essential for the developing cadet to be aware of self strengths & weaknesses, and then engage in a relationship with someone who will challenge & support the cadet beyond one's perceived capability. To accomplish this end, CCLD created an assessment instrument (known as the "Character Mosaic Survey", see Appendix A, pp 16-25) – which became the input for the resultant personalized "Character Mosaic Report" (hereafter referred to as simply the "Mosaic" – see sample Mosaic in Appendix B, pp 26-40).

The essential elements of the Mosaic are:
- The cadet's self-identified strength in nine different <u>virtues</u>
- The cadet's capability to apply each of the four elements of <u>The ARDA Model</u>

Thus, the Mosaic is actually one report that provides scale scores on 13 constructs (i.e., the measures representing the nine different virtues, plus the measures representing the four different elements of The ARDA Model) – thus, creating one overall "mosaic."

This technical report provides the results of empirical analyses to demonstrate the reliability and validity of the various scales reported in the Mosaic. As an overview, the paper first discusses how the nine virtues were derived and validated. The paper then transitions into explaining how each of the four elements from The ARDA Model were derived and validated. In total, this paper describes the various evidences of reliability and validity for every one of the scale scores provided in the Mosaic.

Virtues

<u>Face Validity</u>

Air Force (AF) Doctrine Document 1-1 (18 Feb 2006) defines the Air Forces' three "Core Values", plus lists the virtues that describe each Core Value. Below are the Core Values and their respective virtues.

- **Integrity First**
  - **Courage**
  - **Honesty**
  - **Responsibility**
  - **Accountability**
  - **Justice**
  - **Openness**
  - **Self-respect**
  - **Humility**
  - **Honor**

- **Service Before Self**
  - **Duty**
  - **Respect for Others**
  - **Self-discipline**
  - **Self-control**
  - **Appropriate Actions or Desires**
  - **Tolerance**
  - **Loyalty**

- **Excellence in All We Do**
  - **Personal Excellence**

- o **Organizational Excellence**
- o **Resource Excellence**
- o **Operational Excellence**

Some of the above 20 virtues listed in the AF Doctrine Document 1-1 appeared to the author to have similar definitions and were presumed to be less likely to create independent constructs. For example, the definitions of the four types of "excellence" appeared to actually represent only one construct: excellence. Similarly, the definitions of "Self-discipline", "Self-control", and "Appropriate Actions or Desires" all seemed to be measuring the one construct of "self-control."

The author reviewed the body of instruments that appeared to measure the same constructs as the virtues listed in AF doctrine, thus demonstrating "face validity" with respect to these similar constructs. Face validity is defined as "*when a measure appears to be construct valid by individuals who use it, including participants*" (Schwab, 2005). Two previously validated instruments beyond the Mosaic appeared to have scales that related to many of the AF virtues: Peterson & Seligman's "Value in Action Survey" (VIA) and the "International Personality Item Pool" (IPIP).

Peterson and Seligman (2004) published a handbook that classifies various virtues (and their subordinated "character strengths") – and their "Values in Action Survey" (VIA) was created to measure these character strengths. The VIA instrument has been widely used and validated, including at USAFA.

The VIA's character strengths were reviewed in order to determine if any of their scales would be applicable to the virtues embodied in the AF Core Values. The following VIA scales were selected and are indicated in **bold** print (with the associated AF virtue listed alongside):

- **Courage** (equating to AF's "**Courage**")
- **Fairness** (equating to AF's "**Justice**")
- **Open-mindedness** (equating to AF's "**Openness**")
- **Humility** (equating to AF's "**Humility**")
- **Perseverance** (equating to AF's "**Duty**")
- **Kindness** (equating to AF's "**Respect for Others**")
- **Teamwork** (equating to AF's "**Loyalty**")

Additionally the International Personality Item Pool (IPIP) is a collection of scales that have previously demonstrated validity and are open to public domain. The author reviewed the IPIP scales that appeared to have face validity with the AF's virtues. The following IPIP scales were selected:
- **Conscientiousness** (equating to AF's "**Duty**")
- **Perfectionism** (equating to AF's "**Personal Excellence**")
- **Self-control** (equating to AF's "**Self-control**"). Note: the author created six more items, in order to have a total of 10 items for this virtue.

Finally, there were a two AF virtues that were not adequately represented by either the VIA nor the IPIP. The author therefore created items that he presupposed would relate to the following AF virtues:
- **Accountability**
- **Tolerance**

After conducting a face validation, the following 11 AF virtues were represented in the Character Mosaic Survey. The items from the Character Mosaic Survey that align with each AF virtue are also provided (i.e., a total of 119 items). Each of these 11 virtues theoretically represented 11 different constructs, rather than one global construct.

Integrity First
1. **Courage**
   o Character Mosaic Survey items 80, 92, 104, 116, 128, 140, 152, 164, 175, 185
2. **Accountability**
   o Character Mosaic Survey items 81, 93, 105, 117, 129, 141, 153, 194, 196, 198
3. **Justice**
   o Character Mosaic Survey items 82, 94, 106, 118, 130, 142, 154, 165, 176, 186
4. **Openness**
   o Character Mosaic Survey items 83, 95, 107, 119, 131, 143, 155, 166, 177, 187
5. **Humility**
   o Character Mosaic Survey items 84, 96, 108, 120, 132, 144, 156, 167, 178, 188

Service Before Self
6. **Duty**
   o Character Mosaic Survey items 85, 86, 97, 98, 109, 110, 121, 122, 133, 134, 145, 146, 157, 158, 168, 169, 179, 180, 189
7. **Respect for Others**
   o Character Mosaic Survey items 87, 99, 111, 123, 135, 147, 159, 170, 181, 190
8. **Self-control**
   o Character Mosaic Survey items 88, 100, 112, 124, 136, 148, 160, 171, 182, 191
9. **Tolerance**
   o Character Mosaic Survey items 89, 101, 113, 125, 137, 149, 161, 172, 195, 197
10. **Loyalty**
   o Character Mosaic Survey items 90, 102, 114, 126, 138, 150, 162, 173, 183, 192

Excellence in All We Do
11. **Personal Excellence**
   o Character Mosaic Survey items 91, 103, 115, 127, 139, 151, 163, 174, 184, 193

Survey Administration

The Character Mosaic Survey containing these 119 items (and others) was distributed to 1,117 basic cadets on June 25, 2011 (i.e., their third day at USAFA), where the participants were informed of the purpose of the survey. 1,037 basic cadets volitionally elected to participate in taking the survey, and subsequently responses from 1,024 cadets were useable (i.e., contained responses that did not immediately appear to be invalid, such as the same response given or obvious bogus patterns). Two days later (i.e., June 27, 2011), these same cadets additionally took the "Defining Issues Test" and the "Character Behaviors & Acceptability Questionnaire" (both of those instruments will be discussed later in this paper). The Character Mosaic Report was eventually created, based upon the 626 cadets who sufficiently completed the Character Mosaic Survey, the Defining Issues Test, and the Character Behaviors & Acceptability Questionnaire.

Convergent and Discriminant Validity

Factor Analyses. Presumably, the 11 AF virtues represented 11 independent constructs. The common method of empirically validating the independence of constructs is to conduct factor analyses until a final, independent factor solution is obtained. The process of conducting factor analyses provides simultaneous evidence of both convergent validity and discriminant validity. Convergent validity "*is present when there is a high correspondence between scores from two different measures of the same construct*" (Schwab, 2005, p. 37). Conversely, discriminant validity "*is present when measures of*

constructs that are supposed to be independent are found to have a low correspondence" (Schwab, 2005, p. 37). Thus, when a factor analysis is conducted, all of the various items are "thrown into the hopper" to see which items "converge" together and (in contrast) which items "discriminate" from loading onto a specific factor. The final factor solution, therefore, provides evidence of both convergent and discriminant validity.

A series of exploratory factor analyses were conducted, utilizing a principal axis factoring extraction method, with a varimax rotated solution, suppressing coefficients below 0.30, and selecting factors which had eigenvalues of at least 1.00. Several assumptions of the factor analysis were tested to ensure its reliability (Leech, Barrett, & Morgan, 2008). First, a factor solution should have a determinant value of more than .0001 to ensure that collinearity is not too high; indeed, the determinant test was easily satisfied. Next, the Kaiser-Meyer-Olkin (KMO) test was conducted to ensure that there were sufficient items for each factor. The KMO value should be .70 or higher; the KMO value proved to be .87. Finally, Barlett's Test of Sphericity was conducted to determine if the variables are correlated highly enough to provide a reasonable basis for factor analysis. If the significance of the Bartlett value is less than .05, then the test has been satisfied; the Bartlett value proved to be significant at the .000 level. In summary, all of the tests for adequate assumptions in conducting a factor analysis were more than sufficiently satisfied.

The final factor solution (see Appendix C, p. 41) produced nine factors. These factors demonstrated convergent and discriminant validity.

The author reviewed the nine independent factors and concluded that they had face validity with the 11 AF virtues from which they were originally derived. The author then named each of the nine factors; in most cases, using the original names listed as AF virtues, but in some instances the names were revised to reflect names that were more familiar at USAFA (e.g., "Respect for Human Dignity" was used, instead of the original AF virtue of "Tolerance"). Below are the resultant nine Mosaic **virtues**, their operational definition, and their respective **AF virtue**.

Integrity First
1. **Courage**: stands up for beliefs, even if suffers consequences (related to AF virtue of "**Courage**")
2. **Accountability**: initiates admitting mistakes (related to AF virtue of "**Accountability**")
3. **Humility**: does not brag or act arrogant (related to AF virtue of "**Humility**")

Service Before Self
4. **Duty**: follows through with plans (related to AF virtue of "**Duty**")
5. **Care for Others**: kind & caring toward others (related to AF virtue of "**Respect for Others**")
6. **Self-control**: exercises control over harmful temptations (related to the AF virtue of "**Self-control**")
7. **Respect for Human Dignity**: respect differences in others (related to the AF virtue of "**Tolerance**")

Excellence in All We Do
8. **Attention to Detail**: notices imperfections (related to all four of the AF virtues on "**Excellence**")
9. **Excellence**: ensures excellent quality (related to all four of the AF virtues on "**Excellence**"

Appendix D (pp 42-43) lists all nine Mosaic virtues and their respective items. The only differences between the final nine Mosaic virtues and the original 11 Air Force virtues were:
- The AF virtue of "Justice" was subsumed into the Mosaic virtue of "Respect for Human Dignity"
- The AF virtue of "Openness" did not have a sufficiently high enough Cronbach alpha value
- The AF virtue of "Loyalty" did not load onto an independent factor in the final solution

- The AF virtue of "Personal Excellence" produced two independent factors (i.e., "Attention to Detail" and "Excellence")

<u>Reliability</u>

Each of the Mosaic's nine virtue scales must first demonstrate its reliability (i.e., the consistency of measurement) before it can be considered to have construct validity (i.e., the collective measurements that "*yield numerical values that accurately represent the characteristic*" – Schwab, 2005, p. 26). While there are various forms of reliability (e.g., interrater reliability; test-retest reliability; etc.), the author measured the internal consistency of each virtue scale. Internal consistency is "*a form of reliability that addresses the consistency of scores from a set of items in a measure*" (Schwab, 2005, p. 37). Classically, internal consistency is determined by measuring Cronbach's alpha value of the scale. Alpha values of at least 0.70 are considered to have sufficient reliability.

Table 1 below provides the Cronbach's alpha values for each of the nine virtues (indicated along the diagonal, <u>underlined</u> and highlighted), plus the inter-correlations among the nine virtues.

Table 1
Cronbach's alpha values and inter-correlations of the nine Mosaic virtues

	Courage	Accountability	Humility	Duty	Care for Others	Self-control	Respect Dignity	Attention to Detail	Excellence
Courage	.72								
Accountability	.20**	.76							
Humility	.01	.30**	.81						
Duty	.25**	.15**	.15**	.81					
Care	.32**	.30**	.31**	.21**	.73				
Self-control	.20**	.26**	.28**	.26**	.21**	.89			
Respect	.20**	.27**	.33**	.10*	.42**	.24**	.82		
Attention	.12**	.11**	.07	.27**	.15**	.22**	.07	.80	
Excellence	.26**	.17**	.11**	.42**	.21**	.27**	.13**	.47**	.74

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

Each of the nine scales achieved sufficient reliability, with a range of alpha values from 0.72 to 0.89.

<u>Convergent & Discriminant Validity with the "Moral Foundations Questionnaire"</u>

In addition to the convergent and discriminant validity demonstrated by the factor analyses' final solution, the author presumed that two of the Mosaic virtues (i.e., "Care for Others" and "Respect for Human Dignity") would have high correspondence (i.e., convergent validity) with two respective scales from the Moral Foundations Questionnaire (MFQ) – and that the other Mosaic virtue scales would have low correspondence (i.e., discriminant validity) with the MFQ scales.

The MFQ is a validated instrument that measures the degree to which the respondent believes something is "right or wrong", and thus is commonly used as an instrument for measuring ethical reasoning (Haidt and Graham, 2007). The MFQ consists of five scales:
- "Harm" (one makes decisions based upon avoidance of harm)
- "Fairness" (one makes decisions based upon fair treatment of others)
- "In-Group" (one makes decisions based upon endearment toward a group)
- "Authority" (one makes decisions based upon respect, roles, and order)

- "Purity" (one makes decisions based upon acting properly)

The author presumed that there would be high correspondence between the measures of:
- The Mosaic virtue scale of "Care for Others" and the MFQ scale of "Harm" (inverse)
- The Mosaic virtue scale of "Respect for Human Dignity" and the MFQ scale of "Fairness"

Table 2 below provides the correlations between the all nine Mosaic virtue scales and the five MFQ scales. The measures in which the author presumed a higher correspondence are underlined and highlighted.

Table 2
Correlations of Mosaic virtue scales with the MFQ scales

	Harm	Fairness	In-Group	Authority	Purity
Courage	.16**	.20**	.17**	.13**	.17**
Accountability	.16**	.20**	.16**	.16**	.10*
Humility	.22**	.20**	.20**	.16**	.11**
Duty	-.01	.17**	.25**	.23**	.17**
Care for Others	.34**	.27**	.27**	.17**	.14**
Self-control	.11**	.21**	.14**	.20**	.29**
Respect for Human Dignity	.36**	.33**	.14**	.04	-.05
Attention to Detail	.04	.10*	.12**	.19**	.05
Excellence	.12**	.24**	.20**	.25**	.22**

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

Regarding convergent validity, the above correlations indicate modest support for the presumed high correspondence between the Mosaic virtue scale of "Care for Others" with the MFQ measure of "Harm." Likewise, the Mosaic's "Respect for Human Dignity" virtue scale demonstrated convergent validity with the anticipated MFQ measure of "Fairness."

Regarding discriminant validity, it is true that the Mosaic's virtue scales of "Care for Others" and "Respect for Human Dignity" had lower correspondence with all of the MFQ measures that were not expected to have high correspondence – with one exception. There was a non-presumed high correspondence between the Mosaic's virtue scale of "Respect for Human Dignity" and the MFQ scale of "Harm." This strong correlation (r = .36) may be due to the strong correlation (r = .42; see Table 1) between the Mosaic virtue scales of "Care for Others" and " Respect for Human Dignity" – even though those two Mosaic scales are psychometrically independent.

As an additional test of discriminant validity, all of the other Mosaic virtue scales (beyond "Care for Others" and "Respect for Human Dignity") were not presumed to have high correspondence with any of the five MFQ scales. While it is true that most of the correlations were significant (at the p = 0.01 level), these correlations were generally low (ranging from .04 to .29). This indicates a modest level of discriminant validity for the other seven Mosaic virtue scales when compared to the MFQ measures.

Summary

The items initially considered for representing the AF virtues were originally selected by the author through considering various previously existing validated scales (i.e., VIA and IPIP) that appeared to have face validity in representing the AF's stated virtues. These items were then analyzed for convergent and discriminant validity by conducting a series of exploratory factor analyses. The final factor solution

satisfied all tests of assumptions, producing nine independent factors. Each factor demonstrated sufficient reliability, with Cronbach's alpha values of at least 0.70. Two of the Mosaic virtue scales were presumed by the author to have convergent validity with two scales from the previously validated Moral Foundations Questionnaire; subsequent correlations of these two virtue scales with their respective MFQ scales demonstrated a modest degree of convergent validity. Additionally, a modest degree of discriminant validity was demonstrated between the expected measures from the Mosaic virtue scales and the MFQ scales scores.

In summary, the virtue scales used in the Character Mosaic Report demonstrated reliability and various forms of validity in representing the virtues embodied in the AF Core Values.

The ARDA Model

As previously explained in this paper's "background" section, CCLD's Developing Leaders of Character framework utilizes "The ARDA Model" as the primary mechanism for explaining how to actually *develop* habits of honorable thoughts and actions. This paper will now describe how the four ARDA scale scores (i.e., Awareness, Deciding, Reasoning, Acting) were derived and validated.

Awareness (A)

"Awareness" is one's ability to recognize whether the present moment involves an ethical situation or a call for leadership, and addresses the internal question of "*Is this an ethical issue or a moment for leadership?*"

The author, along with subject matter experts (SMEs) in the fields of psychometrics and character development, created the "Situational Judgment Test" (SJT) – representing three different situations (based upon actual cadet instances) that involved ethical issues and ethical decisions (see Appendix E, pp 44-46, to review the SJT).

The author then administered a pilot survey of the SJT to a volunteer group of Air Officers Commanding (AOCs) and Academy Military Trainers (AMTs), who served as SMEs who are very knowledgeable in determining ethical situations at USAFA. The combined 46 AOCs/AMTs rated how strongly they agreed or disagreed that each situation in the SJT involved a moral or ethical issue. A high level of agreement by the SMEs would demonstrate content validity for the construct of "Awareness." "Content validity" is defined as "*when a measure is judged to be construct valid, usually by individuals who are thought to be subject matter experts*" (Schwab, 2005, p. 37).

Table 3 below indicates the percentage of agreement among the AOC/AMT SMEs concerning whether each SJT situation involved a moral or ethical issue.

Table 3
SME Agreement that the SJT Situation Involved a Moral or Ethical Issue

Situation	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1 Lying	0%	4%	0%	45%	51%
2 Cheating	0%	2%	11%	37%	50%
3 Misuse of Alcohol	0%	11%	2%	30%	57%

As indicated above in Table 3, there was clear agreement among the SMEs that each of the three situations in the Situational Judgment Test involved an ethical or moral issue – demonstrating content validity for the SJT situations.

To summarize, the Mosaic's "Awareness" scale holds content validity, as assessed by subject matter experts.

Reasoning (R)

In The ARDA Model, "Reasoning" is defined as "*What do I need to consider in order to select the best course of action, based upon my values, experiences, commitments, etc.?*"

The cadets' scores from the "Defining Issues Test" (DIT-2) were used as the Mosaic score for "Reasoning." The DIT-2 is a previously validated and widely regarded instrument for measuring one's moral reasoning (Bebeau and Thoma, 2003). Specifically, responses in the DIT-2 produce scores on three different moral reasoning styles:

- **Personal Interest**. People who score high in this style of reasoning tend to give strong consideration to whether their decision will serve their best interest and/or the interest of those people in whom they want to maintain good relationships.

- **Maintaining Norms**. People who score high in this style of reasoning tend to give strong consideration to whether their decision is in compliance with existing rules & law.

- **Post-conventional**. People who score high in this style of reasoning give strong consideration to whether their decision is what would best serve society, produce harmony among the majority, and adhere to principles of fairness & justice.

The DIT-2 has continuously been administered to USAFA cadets since 2004, and has repeatedly demonstrated reliability of its psychometric properties. Additionally, administration of the DIT-2 at USAFA has repeatedly demonstrated validity regarding the instrument's claims that individuals advance in their "Maintaining Norms" and "Post Conventional" reasoning styles (and decrease in their "Personal Interest" scores) as they advance in educational level (McFarlane, 2009). Because of the already strong validations of the DIT-2, no further validations of the DIT-2 were conducted. Thus, the Mosaic's scores on "Reasoning" are considered to have strong reliability and validity.

Deciding (D)

"Deciding" in The ARDA Model answers the internal question of "*What do I intend to do? Does my decision align with the kind of person or leader I want to be?*"

An effective way of measuring one's "intentions" is to administer a form of situational judgment test. The situations and response options from the previously described USAFA "Situational Judgment Test" (SJT) were used in the Character Mosaic Survey.

When validating any particular situational judgment test, the instrument's creator attempts to select only those items for which there is clearly a "right" or "wrong" response -- as assessed by the subject matter experts. If an item provided clear indication of being "right" or "wrong" (as determined by the SMEs), then that item is considered to have content validity (Schwab, 2005).

As previously described in the section on "Awareness", the author had administered a pilot survey of the USAFA SJT to a volunteer group of Air Officers Commanding (AOCs) and Academy Military Trainers (AMTs) who served as SMEs (i.e., very knowledgeable in determining proper ethical decisions with regard to the SJT situations). The combined 46 AOCs/AMTs rated every response option (for each of the three SJT situations) regarding whether this option is a "right" or "wrong" decision. A high level of agreement by the AOC/AMT SMEs would demonstrate content validity of the "Deciding" construct.

Appendix F (pp 47-49) provides every response option from USAFA's Situational Judgment Test and the corresponding percentages of AOCs/AMTs (i.e., the SMEs) who declared that a decision was "right" or "wrong."

A high percentage of "right" or "wrong" decisions by the SMEs would provide evidence of content validity for the decision options. After reviewing the SMEs' percentages, plus considerations for variety of response options and equivalency of response options for each of the three situations, the author selected the following nine SJT decision options as the basis for the Mosaic's "Deciding" scale:

Lying
- *Tell your friends to go without you, because you have not yet read the directive.*
- *Ask someone what the directive said, then sign the posted paper and never read it.*
- *Leave with your friends (hoping no one will notice you never signed the posted paper), and sign the paper once you have returned and read it.*

Cheating
- *Study the questions and memorize the answers.*
- *Tell your honor representative that you suspect an honor violation may have occurred.*
- *Study for the exam without reading the email.*

Misuse of Alcohol
- *Encourage both of your classmates to report the drinking violation to their direct supervisor.*
- *Ensure that your classmate drives safely in returning everyone back to the parents' home.*
- *Insist that your classmate call the parents to come pick everyone up, so that the classmate does not have to drive after having drunk three beers.*

In the Character Mosaic Survey, the response choice scale was revised (from scale measuring "right" and "wrong") to now reflect how likely it would be that the respondent would choose each decision option (i.e., what the respondent *intends* to do). If a cadet responded that s/he was likely to choose the same decision that the SMEs had determined to be "right", then the cadet achieved a high score for "Deciding." Similarly, if the cadet responded that s/he was unlikely to choose the same decision that the SMEs had determined to be "wrong", then the cadet was likewise given a high score for "Deciding." Thus, the Mosaic's scale score for "Deciding" was simply the aggregated scores from the nine decisions.

It is logical to presume that the scores on the Deciding scale would be related to the scores from the previously validated DIT-2 scales. Theoretically, the DIT-2 style of "Personal Interest" reflects a lower level of moral reasoning – and thus one would expect respondents who scored high in this style would score lower in the Deciding scale (i.e., a negative correlation). Similarly, the DIT-2 styles of "Maintaining Norms" and "Post-conventional" theoretically represent higher levels of moral reasoning – and thus one would expect the Deciding scores to be positively correlated. If the correlations of the DIT-2 styles with the Deciding scale reflect the expected relationships, then this would provide evidence of "criterion-related validity." Criterion-related validity "*is present when the measure of interest is related to another measure judged to be more construct valid*" (Schwab, 2005, p. 37). Table 4 below provides

the Pearson correlations between the <u>D</u>eciding scale scores and each of the DIT-2's three moral reasoning styles.

Table 4
Correlations of <u>D</u>eciding scores with the three DIT-2's reasoning styles

DIT-2 Moral Reasoning Style	Correlation with <u>D</u>eciding score
Personal Interest	-.17**
Maintaining Norms	.14**
Post-conventional	.01

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

The results confirmed two of the three expected relationships. The <u>R</u>easoning scale was significantly negatively correlated with Personal Interest, and the scale was significantly positively related to Maintaining Interest. Contrary to expectations, the <u>R</u>easoning scale had no significant relationship with the DIT-2's "Post-conventional" style. This, however, is not the first time that the Post-conventional style has demonstrated no relationship to behavioral integrity at USAFA. Ongoing research by the author to examine the variables which may predict honor or character misconduct indicates no relationship with the Post-conventional style – while demonstrating a positive relationship between misconduct and Personal Interest, and a negative relationship with Maintaining Norms.

Thus, the above correlations indicate that the <u>D</u>eciding scale was able to demonstrate a degree of criterion-related validity with the DIT-2.

In summary, the Mosaic's "<u>D</u>eciding" scale demonstrated content validity (as determined by the subject matter experts), plus a degree of criterion-related validity with the DIT-2.

Acting (A)

In The ARDA Model, "<u>A</u>cting" answers the question of "*Are my actions consistent with being a Leader of Character?*"

USAFA expects Leaders of Character to "live honorably" – and thus avoid lying and cheating behaviors.

USAFA offers a behavioral measure known as the "Character Behaviors and Acceptability Questionnaire" (CBAQ), which has been administered to newly arrived basic cadets for the past four years (McHugh, 2011). The CBAQ asks cadets to indicate the frequency in which they lied (10 items) or stole (10 items) in the past year, plus the amount of cheating (10 items) they engaged in during their final year of high school.

As a self-report instrument, it is possible that a cadet could misrepresent the actual amount of dishonorable behavior in which s/he had engaged. However, the CBAQ utilizes a similar method for determining behavioral integrity as the Josephson Institute uses (Jarc and Fox, 2008). The Josephson Institute regularly surveys incoming college students on the frequency in which they engaged in lying, stealing, and cheating behaviors. USAFA's CBAQ has consistently found variance in cadets' responses, indicating that some cadets report more dishonorable behaviors than others (McHugh, 2011). While it is probably the case that cadets understate the frequency of their dishonorable behaviors (as is also the case in the Josephson Institute's surveys – Jarc and Fox, 2008), it is also the case that the overall variability

across cadets' responses lend support to the position that some cadets have previously lied and cheated (in their past) more than other cadets.

Because of the consistency of CBAQ results at USAFA, plus its similarity in style and findings as the Josephson Institute, Dr. Rosebush chose to report a cadet's CBAQ scores on in the Character Mosaic Report as the indicator of a cadet's "Acting" honorably.

However, before reporting the CBAQ scores in the Mosaic, it was important to demonstrate whether the 30 CBAQ items provided evidence of convergent and discriminant validity, as well as sufficient reliability (i.e., internal consistency, as measured by a Cronbach alpha value of at least 0.70).

A series of exploratory factor analyses were conducted using the 30 CBAQ items that measured the frequency of previous lying, stealing, and cheating. A principal axis factoring extraction method was utilized, with a varimax rotated solution, suppressing coefficients below 0.30, and selecting factors which had eigenvalues of at 1.00. After computing the Cronbach's alpha values for each independent factor – and eliminating factors which did not attain an alpha value of at least 0.70 – there emerged only two independent factors. These two factors represented "Lying" (seven items; alpha value of 0.88) and "Cheating" (five items; alpha of 0.82).

The author then conducted another series of factor analyses on the 12 lying and cheating items, combined with the "Deciding" items from the Character Mosaic Report that related to lying (i.e., three items) and cheating (i.e., three items). The final factor solution from these 18 items produced the following two factors:

- **Lying** (Cronbach's alpha value of 0.82)
    - Lie to protect yourself
    - Lie to protect someone else
    - Lie to conceal a misdeed
    - Distort or embellish the truth

- **Cheating** (Cronbach's alpha value of 0.82)
    - Copy someone else's test answer(s)
    - Plagiarize all or parts of someone else's work
    - Use unpermitted notes on a test
    - Receive the test questions or answers to a test before you took it from someone who had already taken the test
    - Help someone cheat

The resultant Mosaic construct of "Acting" consists of the independent scale scores for "Lying" and "Cheating." These two scales demonstrated convergent and discriminant validity, as well as reliability (i.e., internal consistency).

The descriptive statistics for each of the variables and scales is provided in Appendix G (pp 50-57).

Validations *within* the "Character Mosaic Report"

As previously described in this paper's "Virtues" and "The ARDA Model" sections, the Character Mosaic Report's scale scores have demonstrated reliability and various forms of validity. The author curiously wanted to see if there exists any evidence of predictive validity *within* the various Mosaic scales. Predictive validity is defined as the extent to which a score on a scale or test predicts scores on some criterion measure (Cronbach and Meehl, 1955). For example, do the various Mosaic scales predict the Mosaic's "Lying" or "Cheating" scale scores?

Predicting "Lying"

As a brief review, The ARDA Model involves the construct of "Acting" honorably. This construct is represented by the two Mosaic scales of "Lying" and "Cheating" (which had been derived from the CBAQ responses). The author wanted to see if there were any combination of Mosaic scale scores (other than "Cheating") that could significantly predict the criterion measure of "Lying."

Linear Regression. A linear regression analysis measures the extent to which certain independent variables (i.e., the various Mosaic scale scores other than "Cheating") predict the dependent variable (i.e., the Mosaic's "Lying" scale score). If the linear regression is statistically significant, it provides evidence for the measure's "predictive validity."

Table 5 below provides the correlations of the Mosaic "Lying" scale score (i.e., the dependent variable) with the other Mosaic scale scores (i.e., the independent variables), listed in descending order of correlation:

Table 5
Correlations of Mosaic's "Lying" scale with Mosaic's other scales

Mosaic scale	Correlation	Significance (1-tail)
Self-control	-.30	$p = .000$
Deciding	-.28	$p = .000$
Accountability	-.25	$p = .000$
Excellence	-.17	$p = .000$
Attention to Detail	-.17	$p = .000$
Respect for Human Dignity	-.16	$p = .000$
Duty	-.15	$p = .000$
Humility	-.14	$p = .000$
Maintaining Norms	-.13	$p = .001$
Awareness	-.12	$p = .001$
Courage	-.08	$p = .019$
Care for Others	-.07	$p = .052$
Personal Interest	.06	$p = .071$
Post-conventional	.06	$p = .081$

The above independent variables were entered into a stepwise linear regression, resulting in an adjusted R^2 value of 0.15 – which indicates that 15% of the variance in the "Lying" measure can effectively and efficiently be predicted by the following independent variables (listed in descending order of contribution):

1. Self-control
2. Deciding

3. Accountability
4. Maintaining Norms

The combination of these variables significantly (*p*<.001) predicts "Lying" (see Appendix H, p. 58).

Predicting "Cheating"

The author additionally wanted to see if there were any combination of Mosaic scale scores (other than the "Lying" scale) that could significantly predict the criterion measure of "Cheating."

Linear Regression. Table 6 below provides the correlations of the Mosaic "Lying" scale score (i.e., the dependent variable) with the other Mosaic scale scores (i.e., the independent variables), listed in descending order of correlation:

Table 6
Correlations of Mosaic's "Cheating" scale with Mosaic's other scales

Mosaic scale	Correlation	Significance (1-tail)
Deciding	-.28	*p* = .000
Self-control	-.24	*p* = .000
Excellence	-.19	*p* = .000
Personal Interest	.16	*p* = .000
Respect for Human Dignity	-.14	*p* = .000
Maintaining Norms	-.12	*p* = .001
Courage	-.12	*p* = .002
Attention to Detail	-.12	*p* = .002
Duty	-.11	*p* = .003
Humility	-.11	*p* = .004
Awareness	-.09	*p* = .014
Accountability	-.09	*p* = .016
Care for Others	-.06	*p* = .079
Post-conventional	-.03	*p* = .231

The above independent variables were entered into a stepwise linear regression, resulting in an adjusted R^2 value of 0.11 – which indicates that 11% of the variance in the "Cheating" measure can effectively and efficiently be predicted by these independent variables (listed in descending order of contribution):

1. Deciding
2. Self-control
3. Personal Interest
4. Excellence

The combination of these variables significantly (*p*<.001) predicts "Cheating" (see Appendix I, p. 59).

In summary, the above linear regressions demonstrate evidence of the Character Mosaic Report's "predictive validity" in explaining the "Lying" and "Cheating" scale scores.

Conclusion

The Character Mosaic Report provides cadets personalized scores on nine different virtues embodied in the AF Core Values. These nine virtues are psychometrically independent of each other, and have

demonstrated strong reliability (i.e., internal consistency), and varying degrees of face, convergent, and discriminant validity.

Additionally, the Mosaic provides scale scores on each of the four elements of The ARDA Model. Creation of the "Awareness" and "Deciding" scales demonstrated content validity with subject matter experts, while the Deciding scale demonstrated criterion-related validity with the Defining Issues Test. The "Reasoning" scale simply indicates one's score from the previously validated Defining Issues Test. Finally, the "Acting" element of The ARDA Model is represented by the "Lying" and "Cheating" scale scores; these two scales demonstrated reliability, plus evidence of convergent, discriminant, and predictive validity.

In conclusion, the various scale scores indicated in the Character Mosaic Report have demonstrated strong reliability and various forms of validity when administered to USAFA basic cadets. Further administration of the Character Mosaic Survey to incoming basic cadets at USAFA is recommended. Additionally, criterion-related validation of any of the Mosaic scale scores with "hard" variables (e.g., actual honor or conduct violations) is encouraged.

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Appendix A
Character Mosaic Survey

CHARACTER MOSAIC SURVEY
USAFA Survey Control Number 11-38, expires on 15 June 2012

Purpose: To measure aspects of your character and then provide you feedback on your results.

Confidentiality: Every effort will be made to ensure your responses will be confidential and your individual identity protected. **No person other than you and Dr. Mike Rosebush (the principal researcher) will have access to your identity or individual responses**. **He alone will analyze the data and provide your report of the results. Only you, Dr. Rosebush, and your Developmental Coach (if applicable) will have access to your report** (which contains overall scores, but not individual responses).

Participation is voluntary. Your decision about whether or not to participate in taking this survey will not affect your military career in any way, and no adverse action will be taken if you choose not to participate. You do not have to answer any question that you would prefer not.

Length. The survey takes approximately 40 minutes.

Instructions

1. Please use the **"General Answer Sheet Type A"** (purple, USAFA Form 150) in recording your answers.
2. **GRID**: Print your **academic year squadron** in the **third and fourth columns**. For example: Aggressors, A Flight is the same as First Squadron – therefore they would enter "01" in the third and fourth columns.
3. **SOCIAL SECURITY NUMBER:** enter all nine numbers.

<u>**Section 1**</u>: **Affirmation of Accuracy and Confidentiality**

1. I affirm that I will answer questions as accurately as possible (with no intent to minimize or exaggerate), and fully appreciate that my responses will be kept confidential and analyzed only by Dr. Rosebush.
   A. Yes, I affirm
   B. No, I cannot affirm

<u>**Section 2**</u>:
This section contains three different situations for you to read, and then answer questions based upon that situation.

Situation #1
There is a piece of paper posted in your cadet squadron that asks cadets to sign their name once they have finished reading the most recent directive. In your past, you have overheard senior cadets indicating that they "blow off" reading directives – and sign the paper anyway. Your supervisor has made it clear that everyone needs to read the directive before signing out on a pass. Several cadet friends (including your roommate, who has not read the directive) ask you to join them downtown on a pass – and they are leaving immediately and cannot wait for you because one cadet has a flight to catch. You have not yet read the new directive.

Please decide how much you agree with the following statement:
2. Situation #1 involves a moral or ethical issue.

   A. Strongly <u>dis</u>agree
   B. <u>Dis</u>agree
   C. Neutral
   D. Agree
   E. Strongly agree

Questions 3-7 refer to Situation #1. Decide how likely it would be that you would do that particular response, using this scale:
   A. Very <u>un</u>likely
   B. Somewhat <u>un</u>likely
   C. Uncertain
   D. Somewhat likely
   E. Very likely

3. Glance at the directive to see what the subject is, sign the posted paper, and read the directive when you return.
4. Tell your friends to go without you, because you have not yet read the directive.
5. Ask someone what the directive said, then sign the posted paper and never read it.
6. Ask your supervisor if an exception could be made so that you could join your friends, without having yet read the directive.
7. Leave with your friends (hoping no one will notice you never signed the posted paper), and sign the paper once you have returned and read it.

Questions 8-12 ask you to decide how important each of the following considerations is in your reasoning process of deciding what to do in Situation # 1, using the following scale:

    A. None

    B. Little

    C. Some

    D. Much

    E. Great

8. Are there specific regulations that prohibit signing out in such circumstances?
9. What would best serve your needs in this situation?
10. What do you believe a universal power, God, or god(s), wants you to do?
11. How would your decision impact your friendship with your roommate?
12. Would your action bring about more or less good in the long run to all people?

Questions 13-17 refer back to Situation #1 and then rank order the following considerations, using this scale:

    A. This was my <u>most</u> important consideration

    B. This was my <u>second</u> most important consideration

    C. This was my <u>third</u> most important consideration

    D. This is my <u>fourth</u> most important consideration

    E. This is my <u>fifth</u> most important considerations

13. Are there specific regulations that prohibit signing out in such circumstances?
14. What would best serve your needs in this situation?
15. What do you believe a universal power, God, or god(s), wants you to do?
16. How would your decision impact your friendship with your roommate?
17. Would your action bring about more or less good in the long run to all people?

Situation #2

Your entire cadet class is scheduled to take a knowledge exam tomorrow. Those squadrons performing in the top 25% will earn an extra pass; those in the bottom 25% will be restricted for the weekend. Your roommate tells you that a classmate has sent everyone in your squadron a group email that contains "*study questions and answers*" for tomorrow's knowledge exam. Your roommate says the email ends by saying, "*If you know these answers, you will max the test.*" Your roommate is not certain whether the email is inferring that your classmate wrote these as <u>practice</u> questions, or whether these are the <u>actual</u> questions that will appear on tomorrow's knowledge exam.

Please decide how much you agree with the following statement:

18. Situation #2 involves a moral or ethical issue.

    A. Strongly <u>dis</u>agree

    B. <u>Dis</u>agree

    C. Neutral

    D. Agree

    E. Strongly agree

Questions 19-23 refer to Situation #2. Decide how likely it would be that you would do that particular response, using this scale:

A. Very <u>un</u>likely

B. Somewhat <u>un</u>likely

C. Uncertain

D. Somewhat likely

E. Very likely

19. Study the questions and memorize the answers.

20. Tell your honor representative that you suspect an honor violation may have occurred.

21. Read the email, then see if those same questions appear in tomorrow's exam.

22. Study for the exam without reading the email.

23. Ask your roommate what to do.

Questions 24-28 ask you to decide how important each of the following considerations are in your reasoning process of deciding what to do in Situation #2, using the following scale:

A. None

B. Little

C. Some

D. Much

E. Great

24. Will your decision end up benefitting you?

25. Are you violating any regulation that you would be punished for?

26. Would your response be consistent with principles of fairness?

27. Is a universal power, God, or god(s), influencing you in a certain direction?

28. You believe in class unity; how will your decision be viewed by the rest of your classmates?

Questions 29-33 ask you to rank order the following considerations, using the following scale:

A. This was my <u>most</u> important consideration

B. This was my <u>second</u> most important consideration

C. This was my <u>third</u> most important consideration

D. This was my <u>fourth</u> most important consideration

E. This was my <u>fifth</u> most important considerations

29. Will your decision end up benefitting you?

30. Are you violating any regulation that you would be punished for?

31. Would your response be consistent with principles of fairness?

32. Is a universal power, God, or god(s), influencing you in a certain direction?

33. You believe in class unity; how will your decision be viewed by the rest of your classmates?

Situation #3

One of your classmates (whose parents live in Colorado Springs) borrows the parents' car – which is authorized by policy. The parents have provided specific instructions not to let any other cadet drive their car. Your classmate then picks you and your roommate up – so that all three of you can go downtown. After a while, you have only one hour left before your classmate must return the car to the parents (in order for them to drive everyone back to the Academy in time). All three of you decide to buy snacks at a convenience store. While picking up the snacks, your classmate purchases some beer. Your classmate is 21 years old, but you and your roommate are not. Your roommate asks your classmate for a beer, but you politely remind both of them that it is against the law to drink underage – or to purchase alcohol for someone underage. Both of your classmates disregard your warning, and each drink three beers in the car parked outside the convenience store. You refuse to drink.

Please decide how much you agree with the following statement:

34. Situation #3 involves a moral or ethical issue.

      A. Strongly <u>dis</u>agree

      B. <u>Dis</u>agree

      C. Neutral

      D. Agree

      E. Strongly agree

Questions 35-39 refer to Situation #3. Decide how likely it would be that you would do that particular response, using this scale:

      A. Very <u>un</u>likely

      B. Somewhat <u>un</u>likely

      C. Uncertain

      D. Somewhat likely

      E. Very likely

35. Encourage both of your classmates to report the drinking violation to their direct supervisor.
36. You drive everyone back to the parents' home, and then explain to the parents why you drove their car.
37. Ensure that your classmate drives safely in returning everyone back to the parents' home.
38. Insist that your classmate call the parents to come pick everyone up, so that the classmate does not have to drive after having drunk three beers.
39. You report your two classmates to your supervisor, if they refuse to report the drinking violation.

Questions 40-44 ask you to decide how important each of the following considerations is in your reasoning process of deciding what to do in Situation # 1, using the following scale:

    A.   None
    B.   Little
    C.   Some
    D.   Much
    E.   Great

40. Wouldn't it be breaking the law if your classmate drove while being impaired by alcohol?
41. What is best for you in this situation?
42. Does your response go against what you know a universal power, God, or god(s), has/have commanded?
43. What would best serve society?
44. How would your decision affect your relationship with your classmate and roommate?

Questions 45-49 ask you to rank order the following considerations, using the following scale:

    A.   This was my <u>most</u> important consideration
    B.   This was my <u>second</u> most important consideration
    C.   This was my <u>third</u> most important consideration
    D.   This was my <u>fourth</u> most important consideration
    E.   This was my <u>fifth</u> most important considerations

45. Wouldn't it be breaking the law if your classmate drove while being impaired by alcohol?
46. What is best for you in this situation?
47. Does your response go against what you know a universal power, God, or god(s), has/have commanded?
48. What would best serve society?
49. How would your decision affect your relationship with your classmate and roommate?

Section 3: Moral Foundations

Note: this section was adapted from the "Moral Foundations Questionnaire", by Graham, Haidt, & Nosek.

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using the following scale:

    A.   None
    B.   Little
    C.   Some
    D.   Much
    E.   Great

50. Whether or not someone suffered emotionally
51. Whether or not some people were treated differently than others
52. Whether or not someone's action showed love for his or her country
53. Whether or not someone showed a lack of respect for authority

54. Whether or not someone violated standards of purity and decency
55. Whether or not someone cared for someone weak or vulnerable
56. Whether or not someone acted unfairly
57. Whether or not someone did something to betray his or her group
58. Whether or not someone conformed to the traditions of society
59. Whether or not someone did something disgusting
60. Whether or not someone was cruel
61. Whether or not someone was denied his or her rights
62. Whether or not someone showed a lack of loyalty
63. Whether or not an action caused chaos or disorder
64. Whether or not someone acted in a way that God would approve of

Please read the following sentences and indicate your agreement or disagreement:

    A. Strongly <u>dis</u>agree

    B. <u>Dis</u>agree

    C. Neutral

    D. Agree

    E. Strongly agree

65. Compassion for those who are suffering is the most crucial virtue.
66. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.
67. I am proud of my country's history.
68. Respect for authority is something all children need to learn.
69. People should not do things that are disgusting even if no one is harmed.
70. One of the worst things a person could do is hurt a defenseless animal.
71. Justice is the most important requirement for a society.
72. People should be loyal to their family members, even when they have done something wrong.
73. Men and women each have different roles to play in society.
74. I would call some acts wrong on the grounds that they are unnatural.
75. It can never be right to kill a human being.
76. I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.
77. It is more important to be a team player than to express oneself.
78. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.
79. Chastity is an important and valuable virtue.

Section 4: How You See Yourself

This section of questions reflects statements that many people find desirable, but we want you to answer only in terms of whether the statement describes what you are. Note: It is important to answer all items in order to get the most useful results.

[1]Taken from the "Values in Action" survey (permission granted by the VIA chairman
[2]Taken from the "International Personality Item Pool" (public domain items)

Please be honest and accurate in how you see yourself, using the following scale.

     A. Very much <u>un</u>like me

     B. <u>Un</u>like me

     C. Neutral

     D. Like me

     E. Very much like me

80.   I have taken frequent stands in the face of strong opposition.[1]
81.   I always initiate confessing my mistakes.
82.   I always admit when I am wrong.[1]
83.   I always identify the reasons for my actions.[1]
84.   I am always humble about the good things that have happened to me.[1]
85.   I never quit a task before it is done.[1]
86.   I am always prepared.[2]
87.   I am never too busy to help a friend.[1]
88.   Even when no one would find out, I always resist acting upon temptations that I know are not good for me.
89.   I have a high tolerance of those whose views differ from mine.
90.   I never miss group meetings or team practices.[1]
91.   I pay attention to details.[2]
92.   I have overcome an emotional problem by facing it head on.[1]
93.   I admit mistakes when they are made.
94.   Being able to compromise is an important part of who I am.[1]
95.   I always examine both sides of an issue.[1]
96.   I do not like to stand out in a crowd.[1]
97.   I always finish what I start.[1]
98.   I get chores done right away.[2]
99.   I really enjoy doing small favors for friends.[1]
100. I have an exceptionally high level of self-control over attractive (but harmful) impulses.
101. I am always open to people challenging my views.
102. I really enjoy being part of a group.[1]
103. I continue until everything is perfect.[2]
104. I never hesitate to publicly express an unpopular opinion.[1]
105. I occasionally shift the blame away from myself when I've made a mistake.
106. I treat all people equally regardless of who they might be.[1]
107. I make decisions only when I have all of the facts.[1]
108. I do not act as if I am a special person.[1]
109. I am a goal-oriented person.[1]
110. I carry out my plans.[2]
111. I go out of my way to cheer up people who appear down.[1]
112. When I am tempted to do something pleasurable that I know is wrong, I always resist the temptation.
113. I am very comfortable discussing and negotiating controversial issues.
114. I am an extremely loyal person.[1]
115. I have an eye for detail.[2]
116. I must stand up for what I believe, even if there are negative results.[1]
117. I have an "accountability partner" to whom I confess my mistakes.

Please be honest and accurate in how you see yourself, using the following scale.

- A. Very much unlike me
- B. Unlike me
- C. Neutral
- D. Like me
- E. Very much like me

118. Everyone's rights are equally important to me.[1]
119. I value my ability to think critically.[1]
120. I never brag about my accomplishments.[1]
121. I finish things despite obstacles in the way.[1]
122. I make plans and stick to them.[2]
123. I love to make other people happy.[1]
124. I always exercise self-control over inappropriate desires.
125. I can always see the world from someone else's perspective.
126. I work at my best when I am a group member.[1]
127. I want every detail taken care of.[2]
128. I call for action while others talk.[1]
129. I hold myself accountable for whatever mistakes I have made.
130. I give everyone a chance.[1]
131. My friends value my objectivity.[1]
132. I am proud that I am an ordinary person.[1]
133. I am a hard worker.[1]
134. I complete tasks successfully.[2]
135. I have voluntarily helped a neighbor in the last month.[1]
136. I always turn away from temptations that are harmful to me.
137. I accept people as they are.[2]
138. I never bad-mouth my group to outsiders.[1]
139. I dislike imperfect work.[2]
140. I always stand up for my beliefs.[1]
141. I have people in my life who hold me accountable for the mistakes that I make.
142. I am strongly committed to principles of justice and equality.[1]
143. When the topic calls for it, I can be a highly rational thinker.[1]
144. I prefer to let other people talk about themselves.[1]
145. I do not give up.[1]
146. I do things according to a plan.[2]
147. I always call my friends when they are sick.[1]
148. I easily resist temptations.[2]
149. I can accept a lot of difference perspectives from others.[2]
150. It is important to me to maintain harmony within my group.[1]
151. I want everything to add up perfectly.[2]
152. I always face my fears.[1]
153. I occasionally refrain from confessing mistakes.
154. I refuse to take credit for work I have not done.[1]
155. Thinking things through is part of who I am.[1]
156. I rarely call attention to myself.[1]
157. I never get sidetracked when I work.[1]

Please be honest and accurate in how you see yourself, using the following scale.

    A.   Very much <u>un</u>like me

    B.   <u>Un</u>like me

    C.   Neutral

    D.   Like me

    E.   Very much like me

158. I am exacting in my work.[2]
159. I am as excited about the good fortune of others as I am about my own.[1]
160. I rarely overindulge.[2]
161. I understand people who think differently than me.[2]
162. Without exception, I support my teammates or fellow group members.[1]
163. I detect mistakes.[2]
164. I have overcome pain and disappointment.[1]
165. Even if I do not like someone, I treat him or her fairly.[1]
166. I always weigh the pro's and con's.[1]
167. I have been told that modesty is one of my most notable characteristics.[1]
168. I stick with whatever I decide to do.[1]
169. I finish what I start.[2]
170. I enjoy being kind to others.[1]
171. Whenever I am on a diet, I resist eating what I should avoid.
172. I seldom take offense of those whose views differ from mine.
173. Even if I disagree with them, I always respect the leaders of my group.[1]
174. I demand quality[2]
175. I always speak up in protest when I hear someone say mean things.[1]
176. I believe that everyone should have a say.[1]
177. I try to have good reasons for my important decisions.[1]
178. No one would ever describe me as arrogant.[1]
179. When I make plans, I am certain to make them work.[1]
180. I follow through with my plans.[2]
181. I am thrilled when I can let others share the spotlight.[1]
182. I get angry easily.[2]
183. It is important to me to respect decisions made by my group.[1]
184. I pay too little attention to details.[2]
185. I am a brave person.[1]
186. I believe that it is worth listening to everyone's opinion.[1]
187. My friends value my good judgment.[1]
188. People are drawn to me because I am humble.[1]
189. When I get what I want, it is because I worked hard for it.[1]
190. I follow through with my plans.[2]
191. I always listen to people talk about their problems.[1]
192. I gladly sacrifice my self-interest for the benefit of the group I am in.[1]
193. I prefer to just let things happen.[2]
194. I have hidden mistakes that I have made.
195. I have a difficult time negotiating with people who challenge my views.
196. I see no need in having an "accountability partner" to whom I can confess my mistakes.
197. People who have ideas that are different than mine annoy me.
198. It is sometimes necessary to not let anyone know about your mistake.

Appendix B
Character Mosaic Report

CHARACTER MoSAIC REPORT

C4C Noname
CS-1

Integrity First	Service Before Self	Excellence in All We Do
Lives Honorably	Lifts Others	Elevates Performance
Own	Engage	Practice
Assess	Challenge	Support
Awareness	Reasoning	Deciding
Acting	Leader of Character	Courage
Accountability	Humility	Duty
Care for Others	Self-control	Respect for Human Dignity
Attention to Detail	Excellence	Virtue

This report is <u>confidential</u>.
Only you, Dr. Rosebush (the Mosaic Program Director), and your Developmental Coach have seen it.

An Overview of Your CHARACTER *MoSAIC* REPORT

<u>You</u> own your development as a *Leader of Character*!

We hope your Character Mosaic Report will help you answer:

> *What do <u>you</u> envision a "Leader of Character" to look like? How likely are you to live honorably in the future? What are your strongest virtues (i.e., good qualities)? Which virtue(s) do <u>you</u> most want to develop? Who can best challenge and support you?*

Buckle-up! The journey to becoming a Leader of Character begins!!

Leader of Character:

- *Lives honorably; consistently practicing the virtues embodied in the AF Core Values*
- *Lifts others to their best possible selves*
- *Elevates performance toward a common and noble purpose*

The ARDA Model

This report provides you feedback on how well you scored on the qualities that are vital for developing one's character & leadership:

- **Awareness (A)**
  How capable are you in recognizing the ethical issue of a particular situation?

- **Reasoning (R)**
  What reasoning source do you depend upon when deciding right from wrong?

- **Deciding (D)**
  What did you indicate as your intentions in situations that involved lying, cheating, and use of alcohol?

- **Acting (A)**
  How frequently in the past had you engaged in dishonorable actions?

Lives Honorably

- Which of the nine virtues embodied in the AF Core Values do you most identify with?

Summary of Your Scores as a Leader of Character

- What is your present ability to apply The ARDA Model?
- How much are the Air Force's virtues "like you"?
- What are your "Signature Strengths" that will lift others to their best possible selves?

Strategy for Developing as a Leader of Character

- A recommended strategy for developing as a Leader of Character
- Resources available to you

The ARDA Model

Awareness (A)
Can you recognize whether a situation involves an ethical issue?

Previously this summer you completed the "Character Mosaic Survey" and were asked to determine whether an ethical issue existed in three different scenarios. Based upon responses, cadets were provided a rating of "very aware", "somewhat aware", or "unaware."

Your responses in the survey indicated that you were **very aware** of the potential ethical issues presented in the three scenarios.

Cadets who achieved a "very aware" score were consistently able to recognize the ethical implications in the three scenarios. Those who achieved an "unaware" score were more unaware that the scenarios involved an ethical issue.

Reflecting on your awareness:
- *Are you confident that in future situations you will be able to recognize the potential threats to living honorably?*

Reasoning (R)
What style of reasoning do you use when making a decision on an ethical issue?

When people are deciding what is ethically right from wrong, they often depend upon any of the following three reasoning styles. Previously this summer you completed the "Defining Issues Test" – which determined the percentage of preference that you have for each of these three styles.

Personal Interest
People who score high in this style of reasoning tend to give strong consideration to whether their decision will serve their best interest and/or the interest of those people who they want to maintain good relationships with. Ongoing research at USAFA has preliminarily found that those cadets who score high in this reasoning style are <u>more</u> likely to commit an honor violation.

Maintaining Norms
People who score high in this style of reasoning tend to give strong consideration to whether their decision is in compliance with existing rules & law, respects authority and follows established procedures. Ongoing research at USAFA has preliminarily found that those cadets who score high in this reasoning style are <u>less</u> likely to commit an honor violation.

Post-conventional
People who score high in this style of reasoning tend to give strong consideration to whether their decision is what would best serve society, produces consensus among the majority, and adheres to principles of fairness & justice.

Below are your percentages for each style.
- **Personal Interest   22%**
- **Maintaining Norms   58%**
- **Post-conventional   20%**

Reflecting on your reasoning style:
- *Are you confident that your reasoning style will serve you well in making future honorable decisions?*

Deciding (D)
What are your intentions for acting honorably in the future?

Previously this summer you completed the "Character Mosaic Survey" and answered questions on three scenarios -- indicating the likelihood that you would engage in actions that potentially involved lying, cheating, and dealing with alcohol. Your responses were compared to people who have considerable experience in embodying the Air Force's Core Values (i.e., AOCs, AMTs), to determine how closely your decisions matched theirs. Based upon responses, cadets were provided a rating of "very similar", "somewhat similar", or "dissimilar."

Your ability to make honorable decisions was **very similar** to that of the AOCs/AMTs.

Cadets who score "very similar" indicated that they are likely to engage in ethical actions that align with AOC/AMT expectations. Those who score "dissimilar" indicated a likelihood of making ethical decisions that did not reflect AOC/AMT's concept of "living honorably."

Reflecting upon your ability to make wise decisions:
- *Does your score on "deciding" cause you to reflect upon what will be expected of you as a Leader of Character?*

Acting (A)
How honorably did you live prior to arriving at USAFA?

Our past habits are very strong predictors of how we will act in the future. Ongoing research at USAFA has preliminarily found that those cadets who engaged in more dishonorable actions prior to arriving at USAFA are <u>more</u> likely to commit an honor and/or conduct violation. Previously this summer you completed the "Character Behaviors & Acceptability Questionnaire", where you indicated the frequency in which you had previously engaged in lying and cheating.

Below are the frequency of dishonorable behaviors that you engaged in, compared to your classmates (i.e., less than two-thirds of your classmates; the average amount for your classmates; more than two-thirds of your classmates).

Lying
You indicated a frequency of lying in the past year that is **less than two-thirds of your classmates**.

Cheating
You indicated a frequency of cheating in your final four years of high school that is **the average amount for your classmates**.

Reflecting upon your past actions:
- *Are your past ethical actions consistent with your image of someone who "lives honorably?"*

Lives Honorably

A Leader of Character lives honorably; consistently practicing the virtues embodied in the AF Core Values. The following virtues are defined in AF doctrine as essential components of the AF Core Values. Previously this summer you completed the "Character Mosaic Survey", where you stated the degree to which certain statements were like you. Below are the nine virtues, and the extent to which you believe each virtue defines who you are (i.e., very much like me; like me; not like me).

- **Courage: Stands up for beliefs, even if suffers consequences**
  - **Like me**

- **Accountability: Initiates admitting mistakes**
  - **Like me**

- **Humility: Does not brag or act arrogant**
  - **Not like me**

- **Duty: Follows through with plans**
  - **Very much like me**

- **Care for Others: Kind & caring toward others**
  - **Very much like me**

- **Self-control: Exercises control over harmful temptations**
  - **Not like me**

- **Respect for Human Dignity: Respects differences in others**
  - **Not like me**

- **Attention to Detail: Notices imperfections**
  - **Very much like me**

- **Excellence: Ensures excellent quality**
  - **Very much like me**

Reflecting upon your virtues:
- *Which of these virtues are you most committed to developing?*

Summary of Your Scores as a Leader of Character

The ARDA Model
- **Awareness (A)**   very aware

- **Reasoning (R)**
    - **Personal Interest**   22%
    - **Maintaining Norms**   58%
    - **Post-conventional**   20%

- **Deciding (D)**   very similar

- **Acting (A)**
    - **Lying frequency**   less than two-thirds of your classmates
    - **Cheating frequency**   the average amount for your classmates

Lives Honorably
- **Courage**   Like me
- **Accountability**   Like me
- **Humility**   Not like me
- **Duty**   Very much like me
- **Care for Others**   Very much like me
- **Self-control**   Not like me
- **Respect for Human Dignity**   Not like me
- **Attention to Detail**   Very much like me
- **Excellence**   Very much like me

Signature Strengths (compared to your classmates)
1. **Attention to Detail**
2. **Excellence**
3. **Duty**

Strategy for Developing as a Leader of Character

- **Determine if your present ability to apply The ARDA Model is in harmony with your image of a Leader of Character**

- **Determine how you can utilize your "Signature Strengths" at USAFA, for the purpose of lifting others to their best possible selves**

- **Target a specific virtue that is especially meaningful to you, and then commit to develop your competence & confidence in this virtue**

- **Secure a trusted "accountability partner" who will challenge & support you**

- **Practice the habits of thoughts & actions expressed in The ARDA Model**

Additional Resources

0730-1630
- Peak Performance Center   333-2107
- Human Relations Issues   333-6150
- Cadet Medical Clinic   333-5180
- Chaplain   333-2636
- Sexual Assault Response Coordinator (SARC)   333-7272

After Hours
- Mental Health   333-5177
- Chaplain   333-2910
- Base Command Post   333-2633

CHARACTER *MoSAIC* RESPONSES

C4C Noname
CS-1

This section of the "Character Mosaic Report" provides <u>your actual responses</u> to selected questions that you answered when you took the "Character Mosaic Survey" and the "Character Behaviors & Acceptability Questionnaire" in June 2011. Your responses were used to create the following scores that were previously indicated in this Report:

Awareness

Deciding

Lying

Cheating

Virtues

This section of the Character Mosaic Report is <u>confidential</u>.
Only you and Dr. Rosebush (the Mosaic Program Director)
have seen it.

Situational Judgment

The Character Mosaic Survey provided three different situations involving ethical dilemmas. You were asked a series of questions – resulting in scores for each situation that measure:

- **Awareness (A)** Your ability to recognize that the situation involved an ethical issue
- **Deciding (D)**   Your intentions for acting honorably in the future

Your actual response is printed in **blue**.

Situation #1

There is a piece of paper posted in your cadet squadron that asks cadets to sign their name once they have finished reading the most recent directive. In your past, you have overheard senior cadets indicating that they "blow off" reading directives – and sign the paper anyway. Your supervisor has made it clear that everyone needs to read the directive before signing out on a pass. Several cadet friends (including your roommate, who has not read the directive) ask you to join them downtown on a pass – and they are leaving immediately and cannot wait for you because one cadet has a flight to catch. You have not yet read the directive.

Awareness (A)

- **Situation #1 involves a moral or ethical issue**
    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree
    "5" was your response

Deciding (D)

- **How likely would it be that you would "*tell your friends to go without you, because you have not yet read the directive*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "5" was your response

- **How likely would it be that you would "*ask someone what the directive said, then sign the posted paper and never read it*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "2" was your response

- **How likely would it be that you would "*leave with your friends (hoping no one will notice you never signed the posted paper), and sign the posted paper once you have returned and read it*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "1" was your response

Situation #2

Your entire cadet class is scheduled to take a knowledge exam tomorrow. Those cadets performing in the top 25% will earn an extra pass; those in the bottom 25% will be restricted for the weekend. Your roommate tells you that a classmate has sent everyone in your squadron a group email that contains "*study questions and answers*" for tomorrow's knowledge exam. Your roommate says the email ends by saying "*If you know these answers, you will max the test.*" Your roommate is not certain whether the email is inferring that your classmate wrote these as <u>practice</u> questions, or whether these are the <u>actual</u> questions that will appear on tomorrow's knowledge exam.

Awareness (A)

- **Situation #2 involves a moral or ethical issue**
    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree
    "5" was your response

Deciding (A)

- **How likely would it be that you would "*study the questions and memorize the answers*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "2" was your response

- **How likely would it be that you would "*tell your honor representative that you suspect an honor violation may have occurred*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "4" was your response

- **How likely would it be that you would *"study for the exam without reading the email*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "4" was your response

Situation #3

One of your classmates (whose parents live in Colorado Springs) borrows the parents' car – which is authorized by policy. The parents have provided specific instructions not to let any other cadet drive their car. Your classmate then picks you and your roommate up – so that all three of you can go downtown. After a while, you have only one hour left before your classmate must return the car to the parents (in order for them to drive everyone back to the Academy in time). All three of you decide to buy snacks at a convenience store. While picking up the snacks, your classmate purchases some beer. Your classmate is 21 years old, but you and your roommate are not. Your roommate asks your classmate for a beer, but you politely remind both of them that it is against the law to drink underage – or to purchase alcohol for someone underage. Both of your classmates disregard your warning, and each drink three beers in the car parked outside the convenience store. You refuse to drink.

Awareness (A)

- **Situation #3 involves a moral or ethical issue**
    o Strongly disagree
    o Disagree
    o Neutral
    o Agree
    o Strongly agree
    "5" was your response

Deciding (D)

- **How likely would it be that you would *"encourage both of your classmates to report the drinking violation to their direct supervisor*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "5" was your response

- **How likely would it be that you would *"ensure that your classmate drives safely in returning everyone back to the parents' home*?"**
    1. Very unlikely
    2. Somewhat unlikely
    3. Uncertain
    4. Somewhat likely
    5. Very likely
    "1" was your response

- **How likely would it be that you would "*insist that your classmate call the parents to come pick everyone up, so that the classmate does not have to drive after having drunk three beers*?"**
  1. Very unlikely
  2. Somewhat unlikely
  3. Uncertain
  4. Somewhat likely
  5. Very likely
  "5" was your response

Actions (A)

This summer you also completed the "Character Behaviors & Acceptability Questionnaire" (CBAQ), which asked you to indicate the frequency in which you engaged in lying during the past year and cheating during the final four years of high school. Below your actual responses are highlighted in **blue.**

Lying
- **How frequently in the past year did you "*lie to protect yourself*"?**
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently in the past year did you "*lie to protect someone else*"?**
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently in the past year did you "*lie to conceal a misdeed*"?**
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently in the past year did you "*distort or embellish the truth*"?**
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "3" was your response

Cheating

- **How frequently during your final four years of high school did you *"copy someone else's test answer(s)"?***
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently during your final four years of high school did you *"plagiarize all or parts of someone else's work"?***
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently during your final four years of high school did you *"use unpermitted notes on a test"?***
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently during your final four years of high school did you *"receive the questions or answers to a test before you took it from someone who had already taken the test"?***
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "1" was your response

- **How frequently during your final four years of high school did you *"help someone cheat"?***
  1. Never
  2. Once
  3. 2-5 times
  4. 6-9 times
  5. 10+ times
  "2" was your response

Virtues

In the "Character Mosaic Survey" which you completed last summer, you indicated how much you identified with certain virtues. Below your actual responses are highlighted in **blue**, using the following scale:

1. Very much unlike me
2. Unlike me
3. Neutral
4. Like me
5. Very much like me

- ## Courage
  Stands up for beliefs, even if suffers consequences
  - **"4"** I have taken frequent stands in the face of strong opposition
  - **"3"** I never hesitate to publicly express an unpopular opinion
  - **"5"** I must stand up for what I believe, even if there are negative consequences
  - **"4"** I call for action while others talk
  - **"4"** I always stand up for my beliefs
  - **"4"** I always speak up in protest when I hear someone say mean things

- ## Accountability
  Initiates admitting mistakes
  - **"4"** I always initiate confessing my mistakes
  - **"3"** I always admit when I am wrong
  - **"4"** I admit mistakes when they are made
  - **"5"** I hold myself accountable for whatever mistakes I have made

- ## Humility
  Does not brag or act arrogant
  - **"4"** I am always humble about the good things that have happened to me
  - **"4"** I do not act as if I am a special person
  - **"2"** I never brag about my accomplishments
  - **"2"** I have been told that modesty is one of my most notable characteristics
  - **"4"** No one would ever describe me as arrogant
  - **"4"** People are drawn to me because I am humble

- ## Duty
  Follows through with plans
  - **"4"** I carry out my plans
  - **"4"** I make plans and stick to them
  - **"5"** When I make plans, I am certain to make them work
  - **"5"** I follow through with my plans

- ## Care for Others
  Kind & caring toward others
  - **"5"** I really enjoy doing small favors for friends
  - **"4"** I go out of my way to cheer up people who appear down
  - **"5"** I love to make other people happy
  - **"4"** It is important to me to maintain harmony within my group
  - **"4"** I am as excited about the good fortune of others as I am about my own
  - **"5"** I enjoy being kind to others

- **Self-control**
  Exercises control over harmful temptations
  - **"2"** I have an exceptionally high level of self-control over attractive (but harmful) impulses
  - **"2"** When I am tempted to do something that I know is wrong, I always resist the temptation
  - **"2"** I always exercise self-control over inappropriate desires
  - **"2"** I always turn away from temptations that are harmful to me
  - **"2"** I easily resist temptations

- **Respect for Human Dignity**
  Respects differences in others
  - **"2"** I have a high tolerance of those whose views differ from mine
  - **"4"** I can always see the world from someone else's perspective
  - **"3"** I accept people as they are
  - **"3"** I can accept a lot of different perspectives from others
  - **"2"** I understand people who think differently than me
  - **"4"** I believe that it is worth listening to everyone's opinion
  - **"2"** People who have ideas that are different than mine annoy me

- **Attention to Detail**
  Notices imperfections
  - **"5"** I pay attention to details
  - **"5"** I have an eye for detail
  - **"1"** I pay little attention to details

- **Excellence**
  Ensures excellent quality
  - **"4"** I dislike imperfect work
  - **"5"** I want everything to add up perfectly
  - **"4"** I am exacting in my work
  - **"5"** I demand quality

Appendix C
"Virtues" Factor Solution

Rotated Factor Matrix[a]

	Factor								
	1	2	3	4	5	6	7	8	9
112. When I am tempted to do something pleasurable that I know is wrong, I always resist the temptation	.813								
124. I always exercise self-control over inappropriate desires	.790								
136. I always turn away from temptations that are harmful to me	.782								
148. I easily resist temptations	.732								
100. I have an exceptionally high level of self-control over attractive (but harmful) impulses	.682								
149. I can accept a lot of different perspectives from others		.722							
161. I understand people who think differently than me		.715							
89. I have a high tolerance of those whose views differ from mine		.620							
137. I accept people as they are		.553							
186. I believe that it is worth listening to everyone's opinion		.552							
197. People who have ideas that are different than mine annoy me		-.531							
125. I can always see the world from someone else's perspective		.508							
120. I never brag about my accomplishments			.712						
188. People are drawn to me because I am humble			.699						
178. No one would ever describe me as arrogant			.668						
84. I am always humble about the good things that have happened to me			.629						
167. I have been told that modesty is one of my most notable characteristics			.586						
108. I do not act as if I am a special person			.538						
180. I follow through with my plans				.762					
122. I make plans and stick to them				.733					
110. I carry out my plans				.653					
179. When I make plans, I am certain to make them work				.645					
140. I always stand up for my beliefs					.666				
116. I must stand up for what I believe, even if there are negative consequences					.630				
104. I never hesitate to publicly express an unpopular opinion					.623				
80. I have taken frequent stands in the face of strong opposition					.552				
128. I call for action while others talk					.371				
175. I always speak up in protest when I hear someone say mean things					.342				
123. I love to make other people happy						.698			
111. I go out of my way to cheer up people who appear down						.603			
170. I enjoy being kind to others						.590			
99. I really enjoy doing small favors for friends						.488			
150. It is important to me to maintain harmony within my group						.341			
159. I am as excited about the good fortune of others as I am about my own						.311			
115. I have an eye for detail							.791		
184. I pay too little attention to details							-.738		
91. I pay attention to details							.683		
82. I always admit when I am wrong								.738	
93. I admit mistakes when they are made								.726	
81. I always initiate confessing my mistakes								.594	
129. I hold myself accountable for whatever mistake I have made								.398	
139. I dislike imperfect work									.621
151. I want everything to add up perfectly									.615
158. I am exacting in my work									.476
174. I demand quality									.427

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 7 iterations.

Appendix D
Mosaic Virtues: Scales and Items

Integrity First

1. **Courage: Stands up for beliefs, even if suffers consequences**
   - I always stand up for my beliefs
   - I must stand up for what I believe, even if there are negative results
   - I never hesitate to publicly express an unpopular opinion
   - I have taken frequent stands in the face of strong opposition
   - I always speak up in protest when I hear someone say mean things
   - I call for action while others talk

2. **Accountability: Initiates admitting mistakes**
   - I always admit when I am wrong
   - I admit mistakes when they are made
   - I always initiate confessing my mistakes
   - I hold myself accountable for whatever mistakes I have made

3. **Humility: Does not brag or act arrogant**
   - I never brag about my accomplishments
   - People are drawn to me because I am humble
   - No one would ever describe me as arrogant
   - I am always humble about the good things that have happened to me
   - I have been told that modesty is one of my most notable characteristics
   - I do not act as if I am a special person

Service Before Self

4. **Duty: Follows through with plans**
   - I follow through with my plans
   - I make plans and stick to them
   - When I make plans, I am certain to make them work
   - I carry out my plans

5. **Care for Others: Kind & caring toward others**
   - I love to make other people happy
   - I enjoy being kind to others
   - I go out of my way to cheer up people who appear down
   - I really enjoy doing small favors for friends
   - It is important to me to maintain harmony within my group
   - I am as excited about the good fortune of others as I am about my own

6. **Self-control**: **Exercises control over harmful temptations**
   - When I am tempted to do something pleasurable that I know is wrong, I always resist the temptation
   - I always exercise self-control over inappropriate desires
   - I always turn away from temptations that are harmful to me
   - I easily resist temptations
   - I have an exceptionally high level of self-control over attractive (but harmful) impulses

7. **Respect for Human Dignity**: **Respects differences in others**
   - I can accept a lot of different perspectives from others
   - I understand people who think differently than me
   - I have a high tolerance of those whose views differ from mine
   - People who have ideas that are different than mine annoy me [reverse]
   - I accept people as they are
   - I believe that it is worth listening to everyone's opinion
   - I can always see the world from someone else's perspective

Excellence in All We Do
8. **Attention to Detail**: **Notices imperfections**
   - I have an eye for detail
   - I pay attention to details
   - I pay little attention to details [reverse]

9. **Excellence**: **Ensures excellent quality**
   - I want everything to add up perfectly
   - I dislike imperfect work
   - I am exacting in my work
   - I demand quality

Appendix E
USAFA's "Situational Judgment Test"

Situation #1
There is a piece of paper posted in your cadet squadron that asks cadets to sign their name once they have finished reading the most recent directive. In your past, you have overheard senior cadets indicating that they "blow off" reading directives – and sign the paper anyway. Your supervisor has made it clear that everyone needs to read the directive before signing out on a pass. Several cadet friends (including your roommate, who has not read the directive) ask you to join them downtown on a pass – and they are leaving immediately and cannot wait for you because one cadet has a flight to catch. You have not yet read the new directive.

Please decide how much you agree with the following statement:
1. Situation #1 involves a moral or ethical issue.

   a. Strongly <u>disa</u>gree
   b. <u>Disa</u>gree
   c. Neutral
   d. Agree
   e. Strongly agree

Decide how likely it would be that you would do that particular response, using this scale:

   A. Very <u>un</u>likely
   B. Somewhat <u>un</u>likely
   C. Uncertain
   D. Somewhat likely
   E. Very likely

2. Glance at the directive to see what the subject is, sign the posted paper, and read the directive when you return.
3. Tell your friends to go without you, because you have not yet read the directive.
4. Ask someone what the directive said, then sign the posted paper and never read it.
5. Ask your supervisor if an exception could be made so that you could join your friends, without having yet read the directive.
6. Leave with your friends (hoping no one will notice you never signed the posted paper), and sign the paper once you have returned and read it.

Situation #2
Your entire cadet class is scheduled to take a knowledge exam tomorrow. Those squadrons performing in the top 25% will earn an extra pass; those in the bottom 25% will be restricted for the weekend. Your roommate tells you that a classmate has sent everyone in your squadron a group email that contains "*study questions and answers*" for tomorrow's knowledge exam. Your roommate says the email ends by saying, "*If you know these answers, you will max the test.*" Your roommate is not certain whether the email is inferring that your classmate wrote these as <u>practice</u> questions, or whether these are the <u>actual</u> questions that will appear on tomorrow's knowledge exam.

Please decide how much you agree with the following statement:
7. Situation #2 involves a moral or ethical issue.

    A. Strongly <u>dis</u>agree
    B. <u>Dis</u>agree
    C. Neutral
    D. Agree
    E. Strongly agree

Decide how likely it would be that you would do that particular response, using this scale:

    A. Very <u>un</u>likely
    B. Somewhat <u>un</u>likely
    C. Uncertain
    D. Somewhat likely
    E. Very likely

8. Study the questions and memorize the answers.
9. Tell your honor representative that you suspect an honor violation may have occurred.
10. Read the email, then see if those same questions appear in tomorrow's exam.
11. Study for the exam without reading the email.
12. Ask your roommate what to do.

Situation #3
One of your classmates (whose parents live in Colorado Springs) borrows the parents' car – which is authorized by policy. The parents have provided specific instructions not to let any other cadet drive their car. Your classmate then picks you and your roommate up – so that all three of you can go downtown. After a while, you have only one hour left before your classmate must return the car to the parents (in order for them to drive everyone back to the Academy in time). All three of you decide to buy snacks at a convenience store. While picking up the snacks, your classmate purchases some beer. Your classmate is 21 years old, but you and your roommate are not. Your roommate asks your classmate for a beer, but you politely remind both of them that it is against the law to drink underage – or to purchase alcohol for someone underage. Both of your classmates disregard your warning, and each drink three beers in the car parked outside the convenience store. You refuse to drink.

Please decide how much you agree with the following statement:
13. Situation #3 involves a moral or ethical issue.

      A. Strongly <u>disa</u>gree
      B. <u>Disa</u>gree
      C. Neutral
      D. Agree
      E. Strongly agree

Decide how likely it would be that you would do that particular response, using this scale:
      A. Very <u>un</u>likely
      B. Somewhat <u>un</u>likely
      C. Uncertain
      D. Somewhat likely
      E. Very likely

14. Encourage both of your classmates to report the drinking violation to their direct supervisor.
15. You drive everyone back to the parents' home, and then explain to the parents why you drove their car.
16. Ensure that your classmate drives safely in returning everyone back to the parents' home.
17. Insist that your classmate call the parents to come pick everyone up, so that the classmate does not have to drive after having drunk three beers.
18. You report your two classmates to your supervisor, if they refuse to report the drinking violation.

Appendix F
Subject Matter Experts' judgments regarding "right" and "wrong" decisions
(Note: items ultimately selected for inclusion are <mark>highlighted</mark>)

Situation #1: Lying

1. *Glance at the directive to see what the subject is, sign the posted paper, and read the directive when you return.*
   - o   Very wrong: 41%
   - o   Somewhat wrong: 46%
   - o   Neither right nor wrong: 7%
   - o   Somewhat right: 6%
   - o   Very right: 0%

2. <mark>*Tell your friends to go without you, because you have not yet read the directive.*</mark>
   - o   Very wrong: 0%
   - o   Somewhat wrong: 0%
   - o   Neither right nor wrong: 4%
   - o   Somewhat right: 7%
   - o   Very right: 89%

3. <mark>*Ask someone what the directive said, then sign the posted paper and never read it.*</mark>
   - o   Very wrong: 68%
   - o   Somewhat wrong: 30%
   - o   Neither right nor wrong: 0%
   - o   Somewhat right: 2%
   - o   Very right: 0%

4. *Ask your supervisor if an exception could be made so that you could join your friends, without having yet read the directive.*
   - o   Very wrong: 11%
   - o   Somewhat wrong: 11%
   - o   Neither right nor wrong: 13%
   - o   Somewhat right: 36%
   - o   Very right: 29%

5. <mark>*Leave with your friends (hoping no one will notice you never signed the posted paper), and sign the paper once you have returned and read it.*</mark>
   - o   Very wrong: 84%
   - o   Somewhat wrong: 11%
   - o   Neither right nor wrong: 0%
   - o   Somewhat right: 5%
   - o   Very right: 0%

Situation #2: Cheating

1. *Study the questions and memorize the answers.*
   - o Very wrong: 43%
   - o Somewhat wrong: 25%
   - o Neither right nor wrong: 18%
   - o Somewhat right: 9%
   - o Very right: 5%

2. *Tell your honor representative that you suspect an honor violation may have occurred.*
   - o Very wrong: 4%
   - o Somewhat wrong: 9%
   - o Neither right nor wrong: 20%
   - o Somewhat right: 24%
   - o Very right: 43%

3. *Read the email, then see if those same questions appear in tomorrow's exam.*
   - o Very wrong: 21%
   - o Somewhat wrong: 27%
   - o Neither right nor wrong: 29%
   - o Somewhat right: 16%
   - o Very right: 7%

4. *Study for the exam without reading the email.*
   - o Very wrong: 2%
   - o Somewhat wrong: 2%
   - o Neither right nor wrong: 9%
   - o Somewhat right: 18%
   - o Very right: 68%

5. *Ask your roommate what to do next.*
   - o Very wrong: 18%
   - o Somewhat wrong: 18%
   - o Neither right nor wrong: 46%
   - o Somewhat right: 16%
   - o Very right: 2%

Situation #3: Misuse of Alcohol

1. *Encourage both of your classmates to report the drinking violation to their direct supervisor.*
    o   Very wrong: 0%
    o   Somewhat wrong: 0%
    o   Neither right nor wrong: 2%
    o   Somewhat right: 18%
    o   Very right: 80%

2. *You drive everyone back to the parents' home, and then explain to the parents why you drove their car.*
    o   Very wrong: 0%
    o   Somewhat wrong: 0%
    o   Neither right nor wrong: 2%
    o   Somewhat right: 27%
    o   Very right: 71%

3. *Ensure that your classmate drives safely in returning everyone back to the parents' home.*
    o   Very wrong: 87%
    o   Somewhat wrong: 7%
    o   Neither right nor wrong: 0%
    o   Somewhat right: 2%
    o   Very right: 4%

4. *Insist that your classmate call the parents to come pick everyone up, so that the classmate does not have to drive after having drunk three beers.*
    o   Very wrong: 0%
    o   Somewhat wrong: 0%
    o   Neither right nor wrong: 4%
    o   Somewhat right: 29%
    o   Very right: 67%

5. *You report your two classmates to your supervisor, if they refuse to report the drinking violation.*
    o   Very wrong: 0%
    o   Somewhat wrong: 4%
    o   Neither right nor wrong: 2%
    o   Somewhat right: 29%
    o   Very right: 64%

Appendix G
Descriptive statistics for the Character Mosaic Report items and scales

Virtue Items
Courage

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
80. I have taken frequent stands in the face of strong opposition	626	1	5	3.57	.890	-.230	.098
104. I never hesitate to publicly express an unpopular opinion	626	1	5	3.05	.974	.057	.098
116. I must stand up for what I believe, even if there are negative consequences	626	1	5	3.90	.841	-.578	.098
128. I call for action while others talk	626	1	5	3.56	.828	-.254	.098
140. I always stand up for my beliefs	626	1	5	3.94	.827	-.458	.098
175. I always speak up in protest when I hear someone say mean things	626	1	5	3.18	.859	.112	.098
Valid N (listwise)	626						

Accountability

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
81. I always initiatiate confessing my mistakes	626	1	5	3.42	.860	-.142	.098
82. I always admit when I am wrong	626	1	5	3.32	.912	-.112	.098
93. I admit mistakes when they are made	626	2	5	3.75	.794	-.466	.098
129. I hold myself accountable for whatever mistake I have made	626	1	5	4.03	.715	-.627	.098
Valid N (listwise)	626						

Humility

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
84. I am always humble about the good things that have happened to me	626	1	5	4.01	.905	-.779	.098
108. I do not act as if I am a special person	626	1	5	3.70	1.021	-.472	.098
120. I never brag about my accomplishments	626	1	5	3.51	1.033	-.279	.098
167. I have been told that modesty is one of my most notable characteristics	626	1	5	3.49	1.054	-.303	.098
178. No one would ever describe me as arrogant	626	1	5	3.56	1.089	-.461	.098
188. People are drawn to me because I am humble	626	1	5	3.43	.915	-.276	.098
Valid N (listwise)	626						

Duty

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
110. I carry out my plans	626	1	5	4.09	.654	-.477	.098
122. I make plans and stick to them	626	1	5	3.85	.822	-.631	.098
179. When I make plans, I am certain to make them work	626	1	5	3.79	.765	-.438	.098
180. I follow through with my plans	626	1	5	3.92	.730	-.567	.098
Valid N (listwise)	626						

Care for Others

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
99. I really enjoy doing small favors for friends	626	1	5	3.88	.834	-.416	.098
111. I go out of my way to cheer up people who appear down	626	1	5	3.78	.935	-.507	.098
123. I love to make other people happy	626	1	5	4.19	.815	-.818	.098
150. It is important to me to maintain harmony within my group	626	1	5	4.07	.708	-.666	.098
159. I am as excited about the good fortune of others as I am about my own	626	1	5	3.75	.879	-.697	.098
170. I enjoy being kind to others	626	1	5	4.30	.678	-.854	.098
Valid N (listwise)	626						

Self-control

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
100. I have an exceptionally high level of self-control over attractive (but harmful) impulses	626	1	5	3.70	.985	-.378	.098
112. When I am tempted to do something pleasurable that I know is wrong, I always resist the temptation	626	1	5	3.26	.969	.000	.098
124. I always exercise self-control over inappropriate desires	626	1	5	3.51	.972	-.254	.098
136. I always turn away from temptations that are harmful to me	626	1	5	3.46	.996	-.078	.098
148. I easily resist temptations	626	1	5	3.27	.965	-.037	.098
Valid N (listwise)	626						

Respect for Human Dignity

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
89. I have a high tolerance of those whose views differ from mine	626	1	5	3.75	1.005	-.515	.098
125. I can always see the world from someone else's perspective	626	1	5	3.36	.914	-.125	.098
137. I accept people as they are	626	1	5	3.83	.818	-.536	.098
149. I can accept a lot of different perspectives from others	626	1	5	3.84	.842	-.507	.098
161. I understand people who think differently than me	626	1	5	3.68	.867	-.544	.098
186. I believe that it is worth listening to everyone's opinion	626	1	5	3.89	.794	-.731	.098
q197 reverse coded	626	1.00	5.00	3.5000	.95541	-.447	.098
Valid N (listwise)	626						

Attention to Detail

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
91. I pay attention to details	626	1	5	3.91	.788	-.808	.098
115. I have an eye for detail	626	1	5	3.69	.932	-.477	.098
q184 reverse coded	626	1.00	5.00	3.6326	.98914	-.506	.098
Valid N (listwise)	626						

Excellence

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
139. I dislike imperfect work	626	1	5	3.86	.841	-.551	.098
151. I want everything to add up perfectly	626	1	5	3.87	.881	-.497	.098
158. I am exacting in my work	626	1	5	3.51	.761	-.278	.098
174. I demand quality	626	1	5	3.93	.727	-.601	.098
Valid N (listwise)	626						

Virtue Scales

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
courage sum / nvaild (if nvalid=6)	626	1.50	5.00	3.5357	.56534	-.133	.098
accountability sum / nvalid (if nvalid=4)	626	1.75	5.00	3.6302	.62227	-.135	.098
humility sum / nvalid (if nvalid=6)	626	1.33	5.00	3.6147	.73504	-.493	.098
duty sum / nvalid (if nvalid=4)	626	1.25	5.00	3.9125	.60336	-.432	.098
care sum / nvalid (if nvalid=6)	626	2.00	5.00	3.9933	.53208	-.347	.098
self-control sum / nvalid (if nvalid=6)	626	1.17	5.00	3.4625	.79429	-.095	.098
respect sum / nvalid (if nvalid=7)	626	1.57	5.00	3.6931	.61383	-.277	.098
attention sum / nvalid (if nvalid=3)	626	1.33	5.00	3.7433	.77733	-.495	.098
excellence sum / nvalid (if nvalid=4)	626	2.00	5.00	3.7931	.59324	-.179	.098
Valid N (listwise)	626						

Awareness Items

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
q2 recoded (1=0; 2=0; 3=0; 4=5; 5=5)	626	0	5	4.05	1.963	-1.583	.098
q18 recoded (1=0; 2=0; 3=1; 4=4; 5=5)	626	0	5	3.33	1.839	-.760	.098
q34 recoded (1=0; 2=1; 3=0; 4=3; 5=6)	626	0	6	4.51	2.142	-1.069	.098
Valid N (listwise)	626						

Awareness Scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
awareness sum recoded	626	0	16	11.89	4.059	-.938	.098
Valid N (listwise)	626						

Reasoning Scale
The three moral reasoning styles from the DIT-2

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Personal Interest (Stage 2/3)	626	2.00	66.00	31.0289	12.06899	.118	.098
Maintaining Norms (Stage 4)	626	2.50	78.00	33.7012	12.71313	.259	.098
Post Conventional (P score)	626	.00	76.00	30.8797	12.90986	.297	.098
Valid N (listwise)	626						

Deciding Items

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
decision2_s1	626	1	5	3.27	1.170	-.353	.098
decision3_s1	626	1	5	2.73	1.253	.109	.098
decision5_s1	626	1	5	1.80	1.059	1.255	.098
decision1_s2	626	1	5	2.63	1.277	.244	.098
decision2_s2	626	1	5	3.05	1.191	-.108	.098
decision4_s2	626	1	5	3.90	1.102	-.900	.098
decision1_s3	626	1	5	3.01	1.278	-.140	.098
decision3_s3	626	1	5	1.96	1.237	1.065	.098
decision4_s3	626	1	5	3.68	1.176	-.580	.098
Valid N (listwise)	626						

Deciding Scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
deciding_sum2/.64	626	.00	100.00	41.0493	21.29094	.438	.098
Valid N (listwise)	626						

Acting Items (Lying)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
During the past year had you ever: Lied to protect yourself?	626	1	5	2.33	1.244	.563	.098
During the past year had you ever: Lied to protect someone else?	626	1	5	2.54	1.240	.304	.098
During the past year had you ever: Lied to conceal a misdeed?	626	1	5	2.03	1.191	.905	.098
During the past year had you ever: Distorted or embellished the truth?	626	1	5	2.67	1.363	.243	.098
Valid N (listwise)	626						

Acting Scale (Lying)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
lying mean	626	1.00	5.00	2.3966	1.01291	.536	.098
Valid N (listwise)	626						

Acting Items (Cheating)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
During your final four years of high school, had you ever: Copied someone else's test answer(s)?	626	1	5	1.70	1.088	1.496	.098
During your final four years of high school, had you ever: Plagiarized all or parts of someone else's written work?	626	1	5	1.37	.869	2.537	.098
During your final four years of high school, had you ever: Used unpermitted notes on a test?	626	1	5	1.42	.860	2.268	.098
During your final four years of high school, had you ever: Received the questions or answers to a test before you took it from someone who had already taken the test?	626	1	5	1.94	1.255	1.086	.098
During your final four years of high school, had you ever: Helped someone cheat?	626	1	5	1.90	1.197	1.149	.098
Valid N (listwise)	626						

Acting Scale (Cheating)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
cheat sum/nvalid (if nvalid=5)	626	1.00	5.00	1.6665	.79595	1.618	.098
Valid N (listwise)	626						

Appendix H
Linear Regression of "Lying" with the other Mosaic scales (not including the "Cheating" scale)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.295[a]	.087	.085	3.875
2	.348[b]	.121	.118	3.804
3	.381[c]	.145	.141	3.756
4	.389[d]	.151	.146	3.745

a. Predictors: (Constant), self-control sum / nvalid (if nvalid=6)
b. Predictors: (Constant), self-control sum / nvalid (if nvalid=6), deciding_sum2/.64
c. Predictors: (Constant), self-control sum / nvalid (if nvalid=6), deciding_sum2/.64, accountability sum / nvalid (if nvalid=4)
d. Predictors: (Constant), self-control sum / nvalid (if nvalid=6), deciding_sum2/.64, accountability sum / nvalid (if nvalid=4), Maintain Norms   (Stage 4)

ANOVA[e]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	889.968	1	889.968	59.269	.000[a]
	Residual	9369.874	624	15.016		
	Total	10259.842	625			
2	Regression	1243.905	2	621.952	42.977	.000[b]
	Residual	9015.937	623	14.472		
	Total	10259.842	625			
3	Regression	1485.572	3	495.191	35.104	.000[c]
	Residual	8774.270	622	14.107		
	Total	10259.842	625			
4	Regression	1550.872	4	387.718	27.647	.000[d]
	Residual	8708.969	621	14.024		
	Total	10259.842	625			

a. Predictors: (Constant), self-control sum / nvalid (if nvalid=6)
b. Predictors: (Constant), self-control sum / nvalid (if nvalid=6), deciding_sum2/.64
c. Predictors: (Constant), self-control sum / nvalid (if nvalid=6), deciding_sum2/.64, accountability sum / nvalid (if nvalid=4)
d. Predictors: (Constant), self-control sum / nvalid (if nvalid=6), deciding_sum2/.64, accountability sum / nvalid (if nvalid=4), Maintain Norms   (Stage 4)
e. Dependent Variable: lying sum items 5-8

Appendix I
Linear Regression of "Cheating" with the other Mosaic scales (not including the "Lying" scale)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.278[a]	.077	.076	3.826
2	.315[b]	.099	.096	3.783
3	.335[c]	.112	.108	3.759
4	.343[d]	.118	.112	3.750

a. Predictors: (Constant), deciding_sum2/.64
b. Predictors: (Constant), deciding_sum2/.64, self-control sum / nvalid (if nvalid=6)
c. Predictors: (Constant), deciding_sum2/.64, self-control sum / nvalid (if nvalid=6),
Personal Interest   (Stage 2/3)
d. Predictors: (Constant), deciding_sum2/.64, self-control sum / nvalid (if nvalid=6),
Personal Interest   (Stage 2/3), excellence sum / nvalid (if nvalid=4)

ANOVA[e]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	765.558	1	765.558	52.304	.000[a]
	Residual	9133.330	624	14.637		
	Total	9898.888	625			
2	Regression	981.150	2	490.575	34.272	.000[b]
	Residual	8917.738	623	14.314		
	Total	9898.888	625			
3	Regression	1108.153	3	369.384	26.136	.000[c]
	Residual	8790.736	622	14.133		
	Total	9898.888	625			
4	Regression	1166.123	4	291.531	20.731	.000[d]
	Residual	8732.765	621	14.062		
	Total	9898.888	625			

a. Predictors: (Constant), deciding_sum2/.64
b. Predictors: (Constant), deciding_sum2/.64, self-control sum / nvalid (if nvalid=6)
c. Predictors: (Constant), deciding_sum2/.64, self-control sum / nvalid (if nvalid=6), Personal Interest   (Stage 2/3)
d. Predictors: (Constant), deciding_sum2/.64, self-control sum / nvalid (if nvalid=6), Personal Interest   (Stage 2/3),
excellence sum / nvalid (if nvalid=4)
e. Dependent Variable: cheat sum 4,6,7,8,10